



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,999	12/07/2001	George M. Vais	VAIG101	9222
21658	7590	10/29/2003	EXAMINER	
DYKAS, SHAVER & NIPPER, LLP			CHAMBERS, TROY	
P.O. BOX 877			ART UNIT	
802 WEST BANNOCK STREET, SUITE 405			PAPER NUMBER	
BOISE, ID 83701			3641	

DATE MAILED: 10/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/004,999

Applicant(s)

VAIS, GEORGE M.

Examiner

Troy Chambers

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 9, 10, 13 and 16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 9, 10, 13 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### **DETAILED ACTION**

1. Claim 15 is a non-elected claim that is no longer pending (see applicant's election, paper no. 3).

#### ***Claim Objections***

2. The following is a quotation of 37 C.F.R. 1.75(a):

The specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or discovery.

3. Claim 1 is objected to under 37 C.F.R. 1.75(a) for reciting insufficient structure to perform the recited function of dissipating recoil force producing gasses away from the location of the shooter.

4. Claim 1 is objected to under 37 C.F.R. 1.75(a) because the "any other aperture" limitation disclosed in claim 1 has not been positively recited or particularly pointed out as required by the patent rules. The position of the longitudinally elongated openings is defined by the location of the "any other aperture". So, those other apertures must be positively recited and their structural relationship to the muzzle brake body and elongated opening must be distinctly claimed. For example, the applicant could define the muzzle body, then define the other apertures with respect to the muzzle body (see claim 2), and then define the elongated opening with respect to the muzzle body and the other apertures.

#### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-3, 9, 10, 13 and 16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, claim 1 recites, "said muzzle brake configured to dissipate recoil force producing gasses away from the location of a shooter." However, there is nothing in the specification that would even suggest that the applicant's muzzle brake is capable of this function. Evidence of this capability would be, for example, that the holes are drilled at a 45-degree angle away from the shooter. No such disclosure is present.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. 3707899 issued to Perrine. Perrine discloses a muzzle brake comprising a body 12 having a central bore 23 and a plurality of elongated openings 30. The elongated openings 30 are angled forwardly from the gun so any gasses dispersed there through would be away from the shooter. The openings 30 have a greater longitudinal

Art Unit: 3641

dimension than the opening of the muzzle brake bore 23 and are placed closest to the muzzle end of the gun.

8. Claims 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. 4691614 issued to Leffel. Leffel discloses a muzzle brake 11 having a body configured to direct gasses away from the shooter (via the bullet exit hole 19 or the angled HP holes 15a,b). The brake has 4 elongated openings 15a,b and 18a,b and has a greater longitudinal dimension than the bullet exit hole 19 or spring guide hole 14.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Design D285238 issued to Cellini. Cellini discloses a muzzle brake comprising a cylindrical body having a central bore, at least one opening having a longitudinal dimension greater than a lateral dimension, and, a plurality of gas holes linearly disposed along a longitudinal axis of the body. The brake has a bullet exit hole which acts to gas recoil producing gasses away from the shooter.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5811714 issued to Hull. Hull discloses a muzzle brake having a body and plurality of longitudinally shaped openings 32, 34, 36. The muzzle brake is configured to disperse gasses away from the shooter via the bullet opening 24. The longitudinal openings appear to have a longitudinal dimension greater than the bullet exit hole and are clearly located closer to the muzzle end of the firearm than the bullet exit hole.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9, 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mihaita in view of U.S. Patent No. 5305677 issued to Kleinguenther. Mihaita disclose a muzzle brake as described above. But, neither Mihaita discloses the at least one opening as claimed by the applicant. However, Kleinguenther discloses such an opening. Specifically, Kleinguenther discloses a muzzle brake comprising a cylindrical body of predetermined length having a plurality of exhaust ports 9 formed by the intersection of multiple radial holes (col. 3, ll. 31-33 to col. 4, ll. 1-4). At the time of the invention, one of ordinary skill in the art would have found it obvious to form a longitudinal slot with the intersection of multiple radial holes as disclosed by Kleinguenther. The suggestion/motivation for doing so would have been to form a slot by drilling as opposed to milling.

6. Claims 3, 9, 10, 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5305677 issued to Kleinguenther. Kleinguenther discloses a muzzle brake for a firearm comprising a cylindrical body and exhaust slots formed by the intersection of multiple radial holes. The exhaust slots of Kleinguenther are not linearly disposed along the axis of the cylindrical body as claimed by the applicant. However, one of ordinary skill in the art would have found it obvious to provide the

cylindrical body of Kleinguenther with linearly disposed slots. The objective of the slots is to reduce the recoil of a firearm by exhausting gasses in a manner that allows a portion of the gasses to counterbalance the recoil effect of the firearm. The disposition of the slots is of no consequence because the net release of gas would be the same.

### ***Response to Arguments***

7. With respect to Mihaita, the examiner has changed the rejection to designate openings 210 as the longitudinally elongated openings for the reasons set forth in the rejection. With respect to Cellini, claim 1 requires the longitudinally elongated opening to be positioned nearest the first end as compared to *any other* aperture. The examiner is comparing the elongated openings in the central part of the muzzle brake to the openings at the left end of the brake. Comparing the two, the elongated openings are closer to the first end than the opening on the left end.

### ***Conclusion***

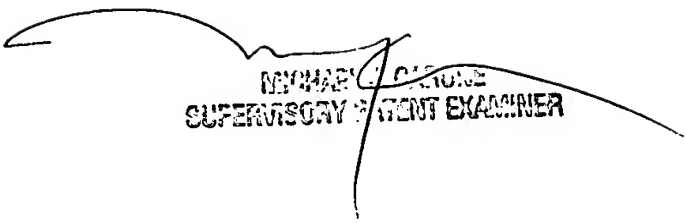
1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Troy Chambers whose telephone number is (703) 308-5870. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Carone, can be reached at (703) 306-4198.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-4177. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687.

Application/Control Number: 10/004,999

Page 7

Art Unit: 3641

  
MICHAEL J. CICHONE  
SUPERVISORY PATENT EXAMINER